

REMARKS

Reexamination and reconsideration of claims 1, 5-11, 13, 14, and 16-41 are respectfully requested. The Examiner's approval of the corrected drawings is acknowledged with appreciation. Additionally, Applicants acknowledge that claims 39-41 are allowable if the 35 U.S.C. sec. 112, second paragraph is overcome.

Claim 34 was objected to because the Office Action stated that "the fiber sub-units" recited in line 7 should be --the optical fibers--. This is not the case. The claim reads as intended by the Applicants. An example of the optical ribbon of claim 34 is depicted in Fig. 2D and described in the present application. Withdrawal of the objection to claim 34 is warranted.

Claims 34-41 were rejected under 35 U.S.C. sec. 112, second paragraph, as failing to set forth the subject matter which Applicants regard as their invention. The Office Action states that:

"[e]vidence that claims 34-41 fail(s) to correspond in scope with that which the applicant(s) regard as the invention can be found in Paper No. 1 filed June 21, 2001. In that paper, applicant has stated one or more colored regions to denote a number pre-assigned to optical ribbon and another colored region to denote a type of optical fibers, and this statement indicates that the invention is different from what is defined in the claim(s) because claims 34-36 and 39-41 recite an optical ribbon formed by two different matrix materials having different colors and claims 37-38 recite a transparent outer matrix covering to visibly view color of an inner matrix color that forms an optical ribbon. Furthermore, claim 34 recites the use of two different matrix materials such that the optical ribbon can be physically separate the optical ribbon at a second matrix material, which does not deal with the color coding. Claims 34-41 do not recite".

The rejection stops in midsentence and is incomplete in its reasoning. However, as Applicants best understand the issue, the

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rejection cites Paper No. 1 filed June 21, 2001, without reference to a page and line number. Paper No. 1 is the present application. Applicants assume that the Office Action is referring to the section titled "Summary of the Invention" on p.

3. The second and third paragraphs of this section state:

More particularly, an optical ribbon in accordance with one preferred embodiment of the present invention is identified by providing at least two colored regions visible at the outer surface of the matrix covering of the optical ribbon. At least one colored region is used to distinguish the optical ribbon from other optical ribbons in a given cable. For example, one or more colored regions can be used to denote a number pre-assigned to the optical ribbon; thus, if the optical ribbons in a cable are assigned two-digit identifying numbers, each optical ribbon can have two colored regions denoting the two digits of the optical ribbon number. Of course, if three-digit numbers were used for identifying the optical ribbons, then three colored regions could be used for denoting the three digits. Each colored region preferably has a color that denotes an integer number, in accordance with a predetermined code. For instance, the color black can denote the integer "0", and brown can denote the integer "1". Additional integers can be denoted by other colors.

The type of optical fibers contained in an optical ribbon can be denoted by another of the colored regions. As an example, such colored region can be the color gold to denote multi-mode fibers, or the color silver to denote single-mode fibers. Yet another color can be used to denote another fiber type, such as large effective area fibers, for example LEAF® optical fibers of Corning, Inc.; alternatively, the absence of any color in the colored region for fiber type could be used to denote such additional fiber type.

As best understood, the rejection effectively states this is the Applicants invention and claims 34-41 are different. In other words, the rejection is saying that since claims 34-41 do not read on these embodiments, the claims 34-41 fail to set forth the subject matter that Applicants regard as their invention. Applicants assert that this is an improper rejection.

In order to understand what subject matter the Applicants

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regard as their invention the entire application must be read, rather than taking a portion of the application out of context. In this case, the last paragraph of the "Summary of the Invention" describes another aspect of the present invention. The last paragraph beginning on p. 5, l. 4 states:

Yet another aspect of the present invention facilitates the identification of individual optical fibers within an optical ribbon. To this end, an optical ribbon in accordance with a preferred embodiment of the invention comprises a plurality of optical fibers arranged generally parallel to one another in a generally planar array, and a matrix covering that encapsulates and binds together the optical fibers, the matrix covering comprising a plurality of different colored regions formed of a first matrix material and bound respectively to the plurality of optical fibers for identifying the optical fibers. The matrix covering further comprises a second matrix material that intercedes between and maintains the colored regions substantially separate from one another. The first matrix material adheres to the optical fibers with a greater tenacity than the second matrix material, whereby the colored regions tend to remain adhered to the optical fibers. Preferably, the colored regions extend to and form part of an outer surface of the matrix covering. The optical ribbon can be manufactured by substantially simultaneously extruding the first and second matrix materials over the fibers. Thus, non-colored optical fibers can be colored and ribbonized in one step.

Moreover, this paragraph from the application explicitly discloses an aspect that Applicants regard as their invention. To say that claims 34-41 fail to correspond in scope with what Applicants regard as their invention in this case is incorrect.

Applicants assert this is not a proper 35 U.S.C. sec. 112, second paragraph rejection because the application cannot be used as "evidence" with this form paragraph. Specifically, the MPEP discuss the proper use of this form paragraph as produced below.

¶ 7.34 Rejection, 35 U.S.C. 112, 2nd Paragraph, Failure To Claim Applicant's Invention
Claim [1] rejected under 35 U.S.C. 112, second paragraph, as

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failing to set forth the subject matter which applicant(s) regard as their invention. Evidence that claim [2] fail(s) to correspond in scope with that which applicant(s) regard as the invention can be found in Paper No. [3] filed [4]. In that paper, applicant has stated [5], and this statement indicates that the invention is different from what is defined in the claim(s) because [6].

Examiner Note

1. This rejection must be preceded by form paragraph 7.30.02 or 7.103.
2. This paragraph is to be used only where applicant has stated, somewhere other than in the application, as filed, that the invention is something different from what is defined in the claim(s).
3. In brackets 3 and 4, identify the submission by applicant (which is not the application, as filed, but may be in the remarks by applicant, in the brief, in an affidavit, etc.) by Paper No. and the date the paper was filed in the USPTO.
4. In bracket 5, set forth what applicant has stated in the submission to indicate a different invention.
5. In bracket 6, explain how the statement indicates an invention other than what is being claimed.

See the relevant portions of § 706.03(d) of the MPEP (attached). The Examiner Notes state "this paragraph is to be used only where applicant has stated, somewhere other than in the application, as filed, that the invention is something different from what is defined in the claim(s). In this case, the Office Action is using the application as evidence in this form paragraph. This use is in direct conflict with the Examiner Notes for this form paragraph. Thus, the 35 U.S.C. sec. 112, second paragraph rejection is improper. Withdrawal of the sec. 112 rejection, second paragraph, of claims 34-41 is warranted and respectfully requested.

Claims 34 and 36 were rejected under 35 U.S.C. sec. 102(e) applying U.S. Pat. No. 6,028,976 ('976). The '976 patent requires optical fibers each having a separate coating resin 4, thereby forming two subunits 5 (optical fiber cable cores) that are bonded to each other using a bonding resin 6. See the '976 patent at Col. 4, ll. 25-30. For a patent to be applicable under

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sec. 102(b), the patent must, *inter alia*, disclose each and every feature of the claimed invention.

Claim 34 recites an optical ribbon including a plurality of optical fibers arranged generally parallel to one another in a generally planar array, the optical fibers being arranged into at least two fiber sub-units each having at least one optical fiber, and an outer matrix covering that encapsulates and binds together the fiber sub-units, the outer matrix covering comprising separate regions of a first matrix material, the first matrix material adhered respectively to each of the fiber sub-units and a connecting region of a second matrix material joining adjacent fiber sub-units together, the first matrix material adhering to the fiber sub-units with a greater tenacity than does the second matrix material such that the outer matrix covering preferentially splits at the connecting region between fiber sub-units whereby the separate regions of the first matrix material tend to remain adhered to the fiber sub-units upon separation thereof.

It is respectfully submitted that at least each and every feature of claim 34 is not disclosed by the '976 patent. Claim 34 recites, *inter alia*, "the outer matrix covering comprising separate regions of a first matrix material... and a connecting region of a second matrix material joining adjacent fiber sub-units together..."

On the other hand, the '976 patent requires optical fibers each having a separate coating resin 4, thereby forming two subunits 5 (optical fiber cable core) that are bonded to each other using a bonding resin 6. See the '976 patent at Col. 4, ll. 25-30. The Office Action does not cite any text whatsoever that bonding resin 6 of the '976 patent is formed from a first matrix material and a second matrix material as recited in claim 34. Moreover, the rejection does not mention, or address, that this feature is disclosed by the '976 patent. See the Office

Action dated March 24, 2003 at p. 3. Simply stated, the '976 patent does not disclose, teach, or otherwise suggest each and every feature of claim 34. For at least this reason, withdrawal of the sec. 102(e) rejection of claims 34 and 36 is warranted and is respectfully requested.

Claims 1, 5-11, 13, 14, and 16-33 were rejected under 35 U.S.C. sec. 103(a) applying Mims, III in view of U.S. Pat. Nos. 5,796,905 ('905), 6,381,390 ('390), and 5,379,363 ('363). For publications to be applicable under sec. 103(a), the combination of teachings must, *inter alia*, expressly or inherently, teach, disclose, or suggest each and every feature of the claimed invention. Additionally, motivation and suggestion to combine the publications must be present.

As discussed previously in the record, the Mims, III publication teaches a resistor color code for ascertaining an electrical property, namely, the electrical resistance value (ohms) of the resistor.

On the other hand, the '905 patent relates to color marking on an optical fiber, not a fiber optic cable or ribbon. Specifically, the '905 patent teaches the identification of optical fibers beyond the standard twelve colors. This is accomplished by marking the optical fiber with a color marking such as a stripe, or band, underneath a further colored layer. See Figs. 1-3 of the '905 patent.

Compare with the '363 patent which teaches marking an optical fiber ribbon. However, the '363 patent expressly teaches spaced apart sets of annular marks of the same color disposed transversely about the optical fiber ribbon. See Figs. 3-4 and Col. 4, ll. 18-22 of the '363 patent. For example, the ninety-ninth optical ribbon requires ninety-nine annular bands in spaced apart sets. Moreover, the craftsman must count each band in a set to determine the number given to the ribbon. The ribbon marking in the '363 patent is time consuming to manufacture,

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tedious to use, and can easily result in identification errors. The '390 patent teaches a color-coding identification scheme for optical fiber ribbons using two colors on a surface of the ribbon.

First, it is respectfully submitted that the applied art, taken alone or in combination with the other art of record, does not implicitly or expressly teach, disclose, or suggest all of the features of claims 1, 5-11, 13, 14, and 16-33. Second, the skilled artisan would not have been motivated, or taken a suggestion, to make the purported combination. Third, the Office Action is unclear how the base reference Mims, III is being modified by the other three references to teach each and every feature of claims 1, 14, 22, and 29. Additionally, the Office Action merely states that "assigning desired information to the color-coding is an obvious designer's choice." See p. 4 of the Office Action dated March 24, 2003. For at least these reasons, the Office Action has failed to make a *prima facie* case of obviousness and the rejection is improper.

I. The applied art, taken alone or in combination with the other art of record, does not implicitly or expressly teach, disclose, or suggest all of the features of claims 1, 5-11, 13, 14, and 16-33.

Claim 1 recites, *inter alia*, an optical ribbon having at least a first colored region, a second colored region, and another colored region, wherein the first and second colored regions respectively denote first and second characters of at least a two-character identifier for the optical ribbon serving to indicate an optical ribbon number and the another colored region denotes (the type) of optical fibers contained in the optical ribbon. Claim 14 recites, *inter alia*, at least one of the colored regions has a color selected to denote an identifying number pre-assigned to the optical ribbon and another of the colored regions has a color selected to indicate a type of the

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optical fibers contained in the optical ribbons. Claim 22, recites, *inter alia*, at least one of the colored regions having a color selected to denote at least one character of the identifier for the optical ribbon and another of the colored regions having a color selected to denote the type of optical fibers. Claim 29 recites, *inter alia*, applying a series of colored regions to one side of the covering for conveying identifying information about a predetermined location of the optical ribbon in an optical ribbon stack and the type of optical fibers in the ribbon.

Specifically, the purported combination of references fails to teach, disclose, or otherwise suggest each and every feature of the claims. Specifically, the purported combination does not teach using a colored region for denoting the type of optical fibers in the ribbon or using the colored region(s) for denoting an optical ribbon number. Moreover, the Office Action does not cite any objective evidence of record that the purported combination teaches these features. Thus, a *prima facie* case of obviousness is lacking.

II. The skilled artisan would not have been motivated or taken a suggestion to make the purported combination.

As an independent basis, the skilled artisan would not been motivated or have taken a suggestion to modify Mims, III with the '905, '390, or the '363 patents. First, as discussed previously and preserved for appeal, this is not analogous art.

Second, if the color-coding of the resistor as taught by Mims, III was applied to an optical fiber ribbon cable it would make no sense. It would teach that the optical fiber ribbon cable had an electrical resistance. Fiber optic cables do not have electrical resistance.

III. The Office Action is unclear how the base reference Mims, III is being modified by the other

three references to teach each and every feature of claims 1, 5-11, 13, 14, and 16-22.

The Office Action does not explain the purported combination. Moreover, the manner in which the combination is being made is not apparent to Applicants.

IV. The claims are improperly rejected under 35 U.S.C. sec. 103(a).

Specifically, merely stating that features of the claimed invention are an obvious choice in design, without more, is an improper rejection and does not make out a *prima facie* case of obviousness supported by concrete evidence as required. Additionally, stating that features of a claimed invention are an obvious choice in design, without more, does not afford the Applicant a fair opportunity to address the rejection because the recording is lacking. In other words, the rejection is arbitrary and capricious, rather than reasoned on the record.

For at least the reasons stated, the Office Action failed to make a *prima facie* case of obviousness. Withdrawal of the sec. 103(a) rejection of claims 1, 5-11, 13, 14, and 16-33 is warranted and requested.

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No new fees are believed due in connection with this Reply. If any fees are due in connection with this Reply, please charge any fees, or credit any overpayment, to Deposit Account Number 19-2167.

Allowance of all pending claims is believed to be warranted and is respectfully requested.

The Examiner is welcomed to telephone the undersigned to discuss the merits of this patent application.

Respectfully submitted,

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706.03(d)

MANUAL OF PATENT EXAMINING PROCEDURE

tion is not enabling, applying the factors set forth in *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1998) as appropriate. See also MPEP § 2164.01(a) and § 2164.04. The explanation should include any questions posed by the examiner which were not satisfactorily resolved and consequently raise doubt as to enablement.

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¶ 7.31.04 Rejection, 35 U.S.C. 112, 1st Paragraph: Best Mode Requirement

Claim [1] rejected under 35 U.S.C. 112, first paragraph, because the best mode contemplated by the inventor has not been disclosed. Evidence of concealment of the best mode is based upon [2].

Examiner Note:

1. This rejection must be preceded by form paragraph 7.30.01 or 7.103.
2. In bracket 2, insert the basis for holding that the best mode has been concealed, e.g., the quality of applicant's disclosure is so poor as to effectively result in concealment.
3. Use of this form paragraph should be rare. See MPEP §§ 2165-2165.04.

Form paragraph 7.33.01 should be used when it is the examiner's position that a feature considered critical or essential by applicant to the practice of the claimed invention is missing from the claim.

¶ 7.33.01 Rejection, 35 U.S.C. 112, 1st Paragraph, Essential Subject Matter Missing From Claims (Enablement)

Claim [1] rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. [2] critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). [3]

Examiner Note:

1. This rejection must be preceded by form paragraph 7.30.01 or 7.103.
2. In bracket 2, recite the subject matter omitted from the claims.
3. In bracket 3, give the rationale for considering the omitted subject matter critical or essential.
4. The examiner shall cite the statement, argument, date, drawing, or other evidence which demonstrates that a particular feature was considered essential by the applicant, is not reflected in the claims which are rejected.

706.03(d) Rejections Under 35 U.S.C. 112, Second Paragraph [R-1]

Rejections under 35 U.S.C. 112, second paragraph, are discussed in MPEP § 2171 - § 2174. Form para-

graphs 7.30.02 and 7.34 through 7.35.01 should be used to reject under 35 U.S.C. 112, second paragraph.

¶ 7.30.02 Statement of Statutory Basis, 35 U.S.C. 112, Second Paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Examiner Note:

1. The statute is no longer being re-cited in all Office actions. It is only required in first actions on the merits and final rejections. Where the statute is not being cited in an action on the merits, use paragraph 7.103.
2. Paragraphs 7.30.01 and 7.30.02 are to be used ONLY ONCE in a given Office action.

¶ 7.34 Rejection, 35 U.S.C. 112, 2nd Paragraph, Failure To Claim Applicant's Invention

Claim [1] rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention. Evidence that claim [2] fail(s) to correspond in scope with that which applicant(s) regard as the invention can be found in Paper No. [3] filed [4]. In that paper, applicant has stated [5], and this statement indicates that the invention is different from what is defined in the claim(s) because [6].

Examiner Note:

1. This rejection must be preceded by form paragraph 7.30.02 or 7.103.
2. This paragraph is to be used only where applicant has stated, somewhere other than in the application, as filed, that the invention is something different from what is defined in the claim(s).
3. In brackets 3 and 4, identify the submission by applicant (which is not the application, as filed, but may be in the remarks by applicant, in the brief, in an affidavit, etc.) by Paper No. and the date the paper was filed in the USPTO.
4. In bracket 5, set forth what applicant has stated in the submission to indicate a different invention.
5. In bracket 6, explain how the statement indicates an invention other than what is being claimed.

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¶ 7.34.01 Rejection, 35 U.S.C. 112, 2nd Paragraph, Failure To Particularly Point out and Distinctly Claim (Indefinite)

Claim [1] rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Examiner Note:

1. This rejection must be preceded by form paragraph 7.30.02 or 7.103.2. This form paragraph should be followed by one or more of the following form paragraphs 7.34.02 - 7.34.11, as applicable. If none of these form paragraphs are appropriate, a full